BBYCT-133

ASSIGNMENT BOOKLET

Bachelor's Degree Programme

(BSCM)

(PLANT ECOLOGY AND TAXONOMY)

Valid from 1st January, 2026 to 31st December, 2026

School of Sciences
Indira Gandhi National Open University
Maidan Garhi, New Delhi-110068

(2026)

Dear Student,

Please read the section on assignments in the Programme Guide for B. Sc. that we sent you after your enrolment. A weightage of 30 per cent, as you are aware, has been earmarked for continuous evaluation, **which would consist of one tutor-marked assignment** for this course. The assignment is in this booklet, and it consists of two parts, Part A and B. The total marks of all the parts are 100, of which 35% are needed to pass it.

Instructions for formatting your Assignments

Before attempting the assignment please read the following instructions carefully:

1) On top of the first page of your answer sheet, please write the details exactly in the following format:

ROLL NO.: ……

NAME: ……

ADDRESS: ……

……

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COURSE CODE: …….

COURSE TITLE: ……..

ASSIGNMENT NO.: ……..…

STUDY CENTRE: ……..…..... **DATE:** ……

PLEASE FOLLOW THE ABOVE FORMAT STRICTLY TO FACILITATE EVALUATION AND TO AVOID DELAY.

2) Use only foolscap size writing paper (but not of very thin variety) for writing your answers.

3) Leave 4 cm margin on the left, top and bottom of your answer sheet.

4) Your answers should be precise.

5) Solve this assignment, and **submit the complete assignment answer sheets within the due date.**

6) The assignment answer sheets are to be submitted to your Study Centre within the due date. **Answer sheets received after the due date shall not be accepted.**

   We strongly suggest that you retain a copy of your answer sheets.

7) This assignment is **valid from 1st January, 2026 to 31st December, 2026**. If you have failed in this assignment or fail to submit it by December, 2026, then you need to get the assignment for the year 2027, and submit it as per the instructions given in the Programme Guide.

8) **You cannot fill the examination form for this course** until you have submitted this assignment.

We wish you good luck.

ASSIGNMENT
(Tutor Marked Assignment)

Course Code: BBYCT-133
Assignment Code: BBYCT-133/TMA/2026
Maximum Marks: 100

Note: Attempt all questions. The marks for each question are indicated against it.

1. With the help of well-labelled diagrams, write a detailed account on any *one* of the following : (10)

   a). Soil profile

   b). Food web in a grassland

2. a). List the objectives of plant taxonomy. Describe plant taxonomy in ancient India. (5)

   b). Describe the construction and use of a taxonomic key. List types of keys and discuss the faults and limitations of each. (5)

3. a). Discuss how evidence from Phytochemistry can help in solving problem of plant taxonomy by citing an example. (5)

   b). Explain the concept of taxonomic hierarchy and arrange various categories from highest to lowest. (5)

4. a). List types of classification and discuss any one of them along with its merits and demerits. (5)

   b). Explain species concept. (5)

5. Write short notes on any *four* of the following: $(4\times 2\frac{1}{2}=10)$

   a). Royal Botanic Gardens, Kew

   b). Monograph or Manual

   c). Edge-punched card

   d). Scientific names and their advantages

   e). OTU (Operational Taxonomic Unit)

6. With the help of a neat and labelled diagrams, describe any *two* of the following : (2×5=10)

   i). Stages of succession in hydrosere

   ii). Carbon cycle

   iii). Components of an ecosystem

   iv). Range of tolerance

7. Give detailed accounts of any *two* of the following : (2×5=10)

   a). Ecological pyramids

   b). Food chains

   c). Forest ecosystem

8. Define insolation. Give a brief description of heat budget of earth. Enlist the factors affecting distribution of insolation. (2+5+3)

9. i). What is binomial nomenclature? Enlist its major principles. (2+4)

ii). What are the major contributions of Bauhin and Linnaeus? (2+2)

10. a). Discuss the principles of numerical taxonomy. (5)

b). Discuss the salient features of structure of taxonomic hierarchy. (5)